probing questions which demand greater physician sophistication and more public participation. The authors pull no punches in presenting them. On page 324 they list a dozen related questions among which is "should physicians invariably be required to do everything they can to treat dying patients?" With the popular demand for the "right to health care" even these two familiar terms, "health" and "care," require a more thorough examination and increasing colloquy and commitment.

The reader in a hurry will find the two case studies (chapters 7 and 10) rewarding. For one with more leisure, a look through the excellent index and bibliography is highly recommended. If in addition you are approaching a political or academic interest and want more data, read J. Katz' and Capron's *On the Social Factors Affecting the Modern Treatment of Catastrophic Disease* (National Center for Health Service, Dept. HEW, Contract No. HSM 110-69-213). Don't, however, pass it by. These authors have sounded an alarm of importance to all physicians and we would do well to heed it.

H. HARRISON SADLER, MD

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FITNESS, HEALTH, AND WORK CAPACITY: International Standards for Assessment—Editor: Leonard A. Larson, PhD, Director of the Department of Physical Education for Men, University of Wisconsin, Madison. Macmillan Publishing Co., Inc., 866 Third Avenue, New York City (10022), 1974. 593 pages, $14.95.

This volume is written primarily for the physician interested in sports medicine or physical education and various para-medical personnel involved in these fields. It contains statistics and methods of examination in connection with evaluation of physiologic measurement, physique, and performance of individuals particularly directed toward various forms of athletics. This material has been gathered by the International Committee for the Standardization of Physical Fitness Tests, over the past ten years. Its various chapters and sections are written and supervised by members of this international committee. The book is well written and well organized but as a result of multiplicity of authors, there is unavoidable repetition. For example, the explanation of physical examination in this field is repeated at least four times.

The section on anthropologic measurements and body compartmentation is extremely detailed and contains much useful information. Likewise, the section on measurement of physiologic factors and performance factors contains much useful detail which should be of great value not only to those interested in sports medicine but to persons specializing in physical medicine, neurology and orthopedics.

On reading the book, one gains the impression that there is an attempt to "socialize" this branch of medicine in order to select and predetermine skills in various sports depending on body build, power, nationality, race, environment, personal status and motivation. It is obvious to those of us who saw the small and chunky Bill Carr defeat the lanky, more ideal statured Ben Eastman in the 1936 Olympics, that this is a commendable aim but that it will be many years before a laboratory can predict the winner of a race in highly competitive athletic events. Obviously, psychologic factors which enter into these functions are not readily measurable and many of these psychologic factors are unpredictable (i.e., why do various athletes in relatively measurable sports, such as baseball, pitching and batting, have such a variation between their "good" and "bad" days?).

The very interesting equipment for measuring the strength of various muscle groups and the comparative strengths of muscle groups in various sporting events, makes interesting statistics. However, there is no explanation of the day to day change in the strength of muscle groups in individuals which may be a factor in the performance of their various events on particular days.

The subject covered by this book is an extremely complicated one and difficult to categorize. I believe the committee has done an outstanding job in this direction and has helped in the understanding of physical performance and work capacity in sports. This book should find itself on the shelves of all medical libraries and in the libraries of Physical Education departments and sections of Physical Medicine and Physiology. It is an invaluable reference book.

JAMES H. THOMPSON, MD

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MICROORGANISMS AND HUMAN DISEASE—Ernest Alan Meyer, ScD, Professor of Microbiology, Department of Microbiology, University of Oregon Medical School, Lecturer in Microbiology, University of Oregon School of Nursing. Appleton-Century-Crofts, A Publishing Division of Prentice-Hall, Inc., 292 Madison Avenue, New York City (10017), 1974. 451 pages, $15.00.

Microorganisms and Human Disease is intended for "students preparing for medically oriented careers," though the author indicates it may also prove useful to others already in the health sciences. It is apparent that the references provided, many published as recently as 1973 are more appropriate for those who are more sophisticated in microbiology and infectious disease.

The book is divided into five parts: An Introduction to Medical Microbiology, Bacteria and Human Disease, Viruses and Human Disease, Fungi and Human Disease, Parasites and Human Disease. There is considerable unevenness in the treatment given various sections or subsections. For example in the chapter "Antimicrobial Methods" dealing with antiseptics and disinfectants as well as chemotherapeutic agents, the only structural formulae shown are those of sulfanilamide and p-aminobenzoic acid. No structure of the antibiotics is shown which could permit appreciation of certain of their properties, for example, the susceptibility of penicillin G to destruction by beta-lactamase. On the other hand a half page is devoted to a hoary depiction of bacterial colonial morphology. There is virtually no description of physiology or metabolism so important in identification of bacteria. Extensive attention is given to the protozoan, and helminthic agents (127 pages) whereas only 42 pages are devoted to virology. A short section on the common cold fails to name specifically any of the etiological agents, for example, rhinoviruses. Bacteria are dealt with in a helpful format that includes classification and identification, pathogenesis, disease characteristics, diagnosis, and others, but this format is inexplicably applied erratically to other agents.

Some sections are misleading, incorrect or incomplete. For example, one might infer that synthesis of "penicillanic acid" is usually carried out without the essential biological role of a Penicillium. Cephalosporins are not mentioned. The section on immunology and host-parasite interaction is extremely brief (9 pages). Anachronistically there is a half page devoted to the Schick test. Mentioned with the Coombs' test is the unexplained "incomplete antibody." Tuberculosis is presented as an infection of lung or intestine. Gonorrhea in the adult female is described only with reference to the large proportion of asymptomatic cases.

The type is large and readable. Review questions and answers represent a useful study device for some students. However, illustrations are not numerous and are generally of poor quality except those in the section on